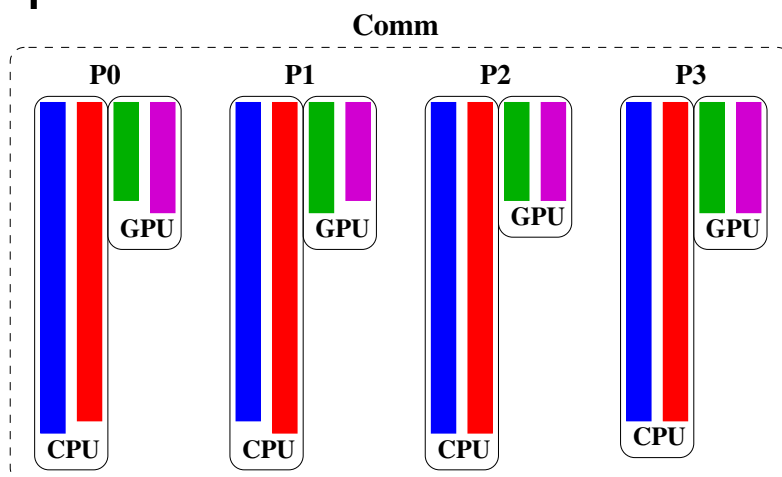


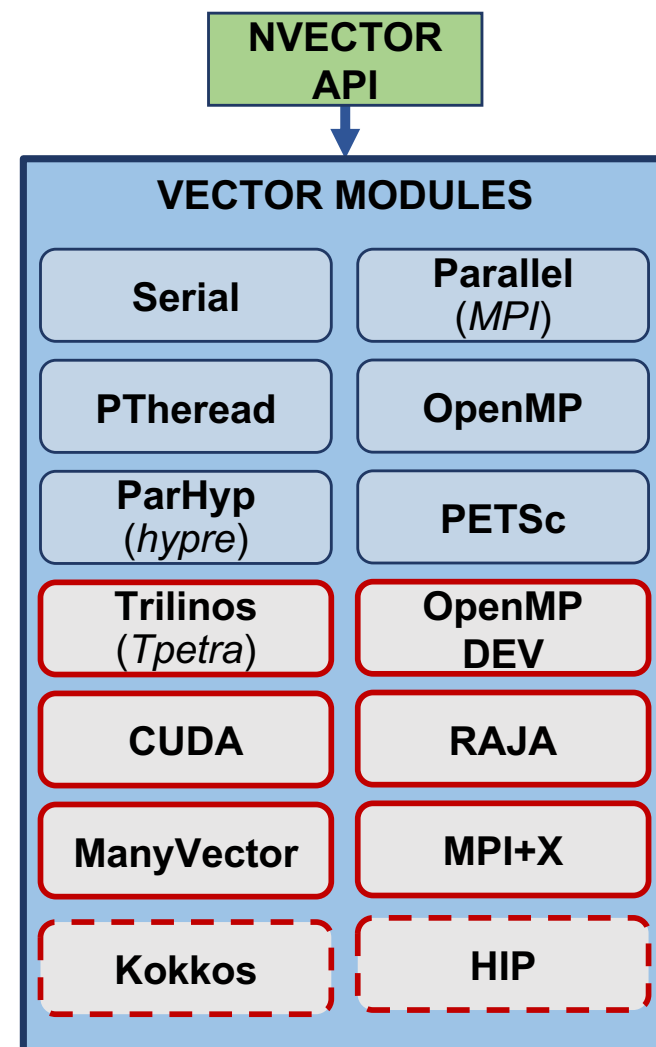
SUNDIALS Vector Modules for Heterogeneous Systems

Under ECP and LLNL iCOE projects:

- Several new vectors targeting GPUs
- *ManyVector*: vector comprised of independent sub-vectors



- *MPI+X*: wraps a local vector module implementation to enable MPI+X



Other Efforts Targeting Heterogeneous System

Under the SUNDIALS ECP project:

- Redesigned solver interfaces will streamline interfacing to new linear/nonlinear solvers for heterogeneous systems
- Added fused vector operations to reduce communication, increase data reuse, and have fewer kernel launches
- Exploring batching linear solves, RHS function evaluations, and vector operations
- Considering potential benefits of moving integrator functions to the GPU for some use cases